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INSECT PEST SURVEY

Bureau of Entomology, U. S. D. A.

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U. S. Department of Agriculture

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Special Report No. 35

CITRUS APHID  
(*Aphis spiraecola* Patch)

The future status of the citrus aphid is not only of vital interest to the entomologists of Florida, but the facts now determined give its present outbreak a much wider appeal. Dr. A. C. Baker of the Bureau of Entomology prepared the following statement:

The insect is *Aphis spiraecola* Patch. When the importance of this pest was first discovered specimens were sent us by Mr. Beyer of the Experiment Station at Gainesville and by Mr. Yothers of the Bureau's laboratory at Orlando. At that time Mr. Mason and the writer determined the insect as *Aphis citricola* Del Guercio, a species known from the Mediterranean region. But it proved remarkably like a species on Spirea in different parts of this country. Early in May of the present year, therefore, the writer undertook a number of transfer tests and it was proven by the end of that month that the Spirea aphid would live and reproduce upon orange and that the orange aphid would live and reproduce upon Spirea. This has since been confirmed in Florida by Mr. Yothers and Dr. Cole of the Bureau's laboratory at Orlando. The two forms are alike in color, in structure and in habit. While *citricola* and *spiraecola* may be the same species it seems wisest to refer to the orange pest as *Aphis spiraecola*. Just what relationship the species bears to *Aphis pomi* of the apple is still an open question. The experiments of Dr. Patch, recently reported, show that there is some rather close relationship.

While *Aphis spiraecola* has not heretofore been recorded on orange it is quite possible that the orange-feeding habit is not a recent one. The Spirea most abundantly attacked is of Asiatic origin. The aphid may have existed on orange in small numbers not only elsewhere but also in Florida. It must be remembered that *pomi*, *spiraecola*, *gossypii*, etc. have until very recently been confused on many plants. The outbreak of an aphid on orange years ago may even have been caused by this same species.

This, then, puts the present outbreak in the class of insect epidemics, outbreaks that occur from time to time when conditions are especially favorable. Such epidemics are not of unusual occurrence with aphids. The periods between them vary with the species concerned, with climatic conditions, with the amount of parasitism and with the crop attacked. In some cases the intensity of the epidemic has centered in one year. In others it has been felt for several years. In some known cases fifteen or twenty years have elapsed between such epidemics.

It is too early to predict the cycles of activity of the orange aphid. Too little is known. It seems probable, however, that the present year marks the crest of the epidemic in at least parts of the orange growing region. In these areas we should expect some decline either during the later part of the present season or during the following season.

This does not mean that the aphid can be disregarded. It is of outstanding importance. While it has been impossible to prevent the present epidemic we should make every effort to determine the development of that epidemic, its decline and the factors that brought it into being. The first step in this direction is the one already taken - the determination of the identity of the insect and of the sources of infestation.

